



Sanjay Ghodawat University, Kolhapur
Established as State Private University under Govt. of Maharashtra.
Act No XL, 2017

2019-20
EXM/P/09/00

Year and Program:
2019-20, M.Sc.-I (All)

**Course Code – REM 501/
MTS 501**

**Day and Date – Wednesday
11/12/19**

PRN number –

School of Science

Section-A
**Course Title – Research
Methodology-I**

End Semester Examination

Seat no-

**Department: Chemistry,
Mathematics and Physics
Semester – I**

**Time: 1 hr [10:30am to
11am]**
Max Marks: 100

Answer Booklet No.-

Students' Signature -

Invigilator's Signature -

Instructions:

- 1) All questions are compulsory.
- 2) **Attempt Q.1 within first 30 minutes.**
- 3) Each MCQ type question is followed by four plausible alternatives, Tick (✓) the correct one.
- 4) Answer to question 1 should be written in the question paper and submit to the Jr. Supervisor.
- 5) If you tick more than one option it will not be evaluated.
- 6) Figures to the right indicate full marks.
- 7) Use **Blue ball pen** only.

Q.1 Tick Mark correct alternative.	Marks	Bloom's Level	COs
1) ----is a regularly updated website or a web page typically run by an individual or a group.	01	L ₁	CO3
<p>A) Website</p> <p>B) Blog</p> <p>C) Vlog</p> <p>D) Online Journal</p>			
2) Which of the following is not true about SWAYAM?	01	L ₁	CO3
<p>A) It is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality.</p> <p>C) The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged.</p> <p>B) SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.</p> <p>D) All the courses are interactive, prepared by the best teachers in the country and are available, free of cost to only intelligent students.</p>			

- 3) Identify whether the following statement is True or False. 01 L₁ CO1
 In general, there are two types of approaches in Research-Quantitative and Evaluative approach.
 A) True B) False
- 4) Which of the following problem statements is best suitable as per the techniques of defining effective problem statements? 01 L₂ CO2
 A) Air Pollution
 B) Air pollution in India
 C) Air Pollution in Kolhapur
 D) Effect of industrial air pollution on some vegetables and cash crops in Kolhapur District
- 5) To identify accurately the characteristics of a particular phenomenon is an example of----- 01 L₁ CO1
 A) Hypothesis Testing Research C) Descriptive Research
 B) Exploratory Research D) Diagnostic Research
- 6) Which of the following is **not true** about C N R Rao? 01 L₁ CO1
 A) C. N. R. Rao is also known as Chintamani Nagesa Ramachandra Rao and he is an Indian chemist who has worked mainly in solid-state and structural chemistry.
 B) He currently serves as the Head of the Scientific Advisory Council to the Prime Minister of India.
 C) He is the first scientist to receive Bharat Ratna, the highest civilian award in India.
 D) As per Google Scholar his papers have been cited 115299 times.
- 7) The term "-----" refers to exponential and continuing increase in subscription cost of scholarly journals. 01 L₁ CO3
 A) inflation C) serial crisis
 B) subscription D) journal cost
- 8) . -----is a website which provides subscription -based access to a large database of scientific and medical research. 01 L₁ CO3
 A) Google Scholar C) Science Direct
 B) Scopus D) Shodhganga

- 9) What is the full form of DOAJ in research? 01 L₁ CO₂
- A) Director of Open Access Journals
 B) Date of Open Access Journal
 C) Directory of Open Access Journals
 D) Document of Open Access Journals
- 10) The UGC-Infonet Digital Library Consortium was formally launched in----- 01 L₂ CO₃
- A) December, 2002 C) December, 2004
 B) December, 2003 D) December, 2005
- 11) Research is----- 01 L₁ CO₂
- A) systematic approach to obtaining and confirming new and reliable knowledge
 B) Accidental discovery
 C) Searching out published research results
 D) Data Collection
- 12) As per the Google Scholar record, scientist C N R Rao's h-index is 153, what does it mean? 01 L₁ CO₂
- A) It means that 153 papers out of all the papers published by C N R Rao are of best quality.
 B) It means that out of all the published papers of C N R Rao 153 papers have been cited at least 153 times.
 C) It means that C N R Rao has got 153 citation index.
 D) It means that C N R Rao has got 153 citations in a month.
- 13) What indicates the quality of a journal? 01 L₂ CO₂
- A) The influence factor C) The intake factor
 B) The impact factor D) The OPAC factor

- 14) 'Good research is systematic'. It means----- 01 L₁
- A) research does not reject the use of guessing and intuition in arriving at conclusions.
- B) there is no scope for creative thinking in research.
- C) in research conclusions can be drawn based on assumptions.
- D) research is structured with specified steps to be taken in a specified sequence in accordance with the well-defined set of rules.
- 15) Shodhganga is: 01 L₁
- A) A digital repository of Indian theses and dissertations submitted to Indian universities.
- B) A digital repository of Indian and foreign theses and dissertations submitted to Indian and foreign universities.
- C) Government of India's project to clean river Ganga.
- D) Search for the origin of river Ganga.
- 16) First step in research process is _____ 01 L₂
- A) Define Research problem C) Data analysis
- B) Hypothesis D) Data collection
- 17) 'H' from the term 'H-index' refers to : 01 L₁
- A) Edmond Halley C) Kristy Hawkins
- B) Jorge E. Hirsch D) Charles B. Hensley
- 18) Which section of a journal article is provided in most online electronic databases? 01 L₂
- A) Conclusion C) Results
- B) Introduction D) Abstract

- 19) Which of the following is a technique of selecting a research problem? 01 L₃ CO1
- A) Controversial subject should become the choice of an average researcher
 - B) Too narrow or too vague problems should be selected
 - C) The selection of a problem must be preceded by a preliminary study
 - D) Subject on which there is a lot of material available should be chosen.
- 20) Research should be empirical, means 01 L₂ CO1
- A) Research should be carried by logical reasoning
 - B) Research should be systemic
 - C) Research should be based on experimental evidences and backed by concrete data
 - D) Research should be carried out by following specific steps to arrive at conclusion



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Section-B

Mathematics and Physics

Course Code: REM 501

Course Title: Research

Semester - I

MTS 501

Methodology-I

Day and Date: Wednesday

End Semester Examination

Time: 2.5hr [11am to 01.30pm]

11/12/19

(ESE)

Max Marks: 100

Instructions:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Non-programmable calculator is allowed.

	Marks	Bloom's Level	COs
Q.2 a) Attempt Any Four from the following questions.	40		
A Define Research and state its objectives.	10	L1	CO1
B Critically evaluate research in India and illustrate with suitable example the problems faced by the researchers.	10	L4	CO1
C Explain Research Process with suitable examples.	10	L2	CO1
D State the sources of reviewing existing literature and explain in detail Digital Sources.	10	L1	CO2
E Define research problem and explain techniques involved in defining a research problem.	10	L1	CO2
Q.3 Answer the following questions.	20		
A A research journal has published 240 research papers in the year 2017, 241 papers in the year 2018, and research papers from this journal were cited 150 times in the year 2017 and 54 times in the year 2018. Calculate impact factor of this journal for the year 2019. (Write stepwise answer)	05	L4	CO3
B What is h-index? How to calculate it.	05	L2	CO3
C Enlist types of research.	05	L1	CO3
D Explain criteria of good research.	05	L1	CO1

Q.4 Write short notes on any four of the following.

20

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|---|----|----|-----|
| a) Significance of research | 05 | L1 | CO1 |
| b) National Digital Library of India (NDL) | 05 | L1 | CO3 |
| c) Shodhganga | 05 | L1 | CO3 |
| d) Difference between Research Methods and Research Methodology | 05 | L2 | CO1 |
| e) Motivation in research | 05 | L1 | CO1 |
